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EXAMINER				
HO, DUC CHI				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/715,178

Applicant(s)

BUTEHORN ET AL.

Examiner

Duc C. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33, 35-39, 42-48, 50-52 and 55 is/are rejected.
- 7) ☒ Claim(s) 34, 40, 41, 49, 53 and 54 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7-27-06</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite. The claim appears to be incomplete at the limitation "wherein if the destination host is determined not to be reachable, the logic redirects the packet over the radio network according to the route table" in lines 7-8. It is unclear as to where the packet will be redirected to via the route table, if the destination host is determined not to be reachable. The same remark applies to claims 10, and 19.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-4, 6, 10-13, 15, 19-22, 24, 28-33, 35-39, 42-48, 50-52, and 55 are rejected under 35 U.S.C. 102(b) as being anticipated by Rempe et al. (US 6,604,146), hereinafter referred to as Rempe.

Regarding claim 1, Rempe discloses efficient Internet service implementation for mesh satellite networks using centralized router server for distribution of destination tables.

*an air interface configured to receive a packet over the radio network, the packet being destined for a destination host, wherein the radio network supports meshed connectivity (a satellite terminal 34-fig.1 inherently includes an air interface for receiving a packet over the meshed satellite network-fig.1 to a destination terminal);*

*a communication interface coupled to the air interface (the satellite 34-fig.1 inherently includes a communication interface coupled to the air interface);*  
*and*

*logic for determining whether the destination host is reachable by the communication interface based upon a route table, wherein if the destination host is determined not to be reachable, the logic redirects the packet over the radio network according to the route table (the satellite 34-fig.1 inherently includes a logic to look at the destination address of the IP packet and map that to a destination terminal. If the next hop to the destination terminal is a router which doesn't have the same IP subnet as required by routing protocol, the destination host is determined not to be reachable, and the packet could be directed to secondary route as provided by the table, see col.2-line 60 to col.3-line 65).*

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Regarding claim 2, the network 20-fig.1 is a satellite network.

Regarding claim 3, the terminal should include a logic operating according to a protocol such as OSPF.

Regarding claim 4, the satellite terminal 34-fig.4 should include the air interface so that the terminal could receive a message from the router server 40-fig.1 for updating of the route table.

Regarding claim 6, the message could be multicast from the route server.

Regarding claims 10, 19, these claims have similar limitations as claim 1. Therefore, they are rejected under Rempe for the same reasons set forth in the rejection of claim 1.

Regarding claims 11-13, 15, these claims have similar limitations as claims 2-4, and 6, respectively. Therefore, they are rejected under Rempe for the same reasons set forth in the rejection of claims 2-4, and 6.

Regarding claims 20-22, 24, these claims have similar limitations as claims 2-4, 6, respectively. Therefore, they are rejected under Rempe for the same reasons set forth in the rejection of claims 2-4, and 6.

Regarding claim 28, the satellite terminal 34-fig.1 should have routing instructions stored in a computer-readable medium, that when executed by one or more processors would perform the packet routing.

Regarding claim 29, Rempe discloses efficient Internet service implementation for mesh satellite networks using centralized router server for distribution of destination tables.

*receiving, at a route server, routing information from one of a plurality of route clients, the route clients being in communication with the route server over a first data network that is fully meshed, wherein the routing information specifies reachability of a host that is within a second data network served by the one route client* (the route server 40-fig.1 receives routing information from other route clients 52, 54, etc., over a meshed satellite network. The routing information includes IP address of a destination terminal within a terrestrial network served by the route clients);

*modifying a route table of the route server in response to the received routing information* (the route server 40-fig.1 should be able to update (modifying) its route table in response to changes from the satellite terminal); *and*

*transmitting a message based on the modified route table to the route clients for updating of respective route tables of the route clients* (transmits a message based on the updated route tables to the route clients).

Regarding claim 30, in Rempe the first network is a satellite network, and the second data network is a terrestrial network.

Regarding claim 31, the route server 40-fig.1 maintains a list of router clients, and the list should include the route clients that are inactive or do not provide routing information to the route server.

Regarding claim 32, in Rempe a message for transmission over the networks to the route clients should be segmented into a plurality of packet, and each of the packets having a sequence number for assembling at the destination route clients.

Regarding claim 33, the route server 40-fig.1 is capable of determining the number of route clients that are to receive the message by comparing the number with a threshold of total registered route clients, and the message will be multicast to the route clients based on the comparison.

Regarding claim 35, each of the route clients could be configured to redirect a packet received from another one of the route clients.

Regarding claim 36, the route server 40-fig.1 should have routing instructions stored in a computer-readable medium, that when executed by one or more processors would perform receiving routing information from the route clients.

Regarding claims 37-39, these claims have similar limitations as claims 29-32, respectively. Therefore, they are rejected under Rempe for the same reasons set forth in the rejection of claims 29-32.

Regarding claim 42, in Rempe a satelliter terminal, i.e., 34, receives data at its satellite interface from a first route client, and if the data cannot be routed over the terrestrial interface, the data can be transmitted via the satellite interface to another route client.

Regarding claim 43, this claim has similar limitations as claim 36. Therefore, it is rejected under Rempe for the same reasons set forth in the rejection of claim 36.

Regarding claims 44-48, these claims have similar limitations as claims 29-33, respectively. Therefore, they are rejected under Rempe for the same reasons set forth in the rejection of claims 29-33.

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Regarding claims 50-52, these claims have similar limitations as claims 29-30, and 32, respectively. Therefore, they are rejected under Rempe for the same reasons set forth in the rejection of claims 29-30, and 32.

Regarding claim 55, this claim has similar limitations as claim 42. Therefore, it is rejected under Rempe for the same reasons set forth in the rejection of claim 42.

***Allowable subject matter***

4. Claims 34, 40-41, 49, and 53-54 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 5, 7-9, 14, 16-18, 23, and 25-27 would be allowable if rewritten to include all of the limitations of the base claim(s) and any intervening claims, and if the base claim(s) overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Border et al.(US 2004/0073678) ; Bharali et al.(US 2003/0112809) ; Liron (US 5,740,164) ; Eidenschink et al.(US 2001/0036161) are cited to show system and method for routing among private addressing domains, which is considered pertinent to the claimed invention.



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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read 'Duc Ho', written over the printed name.

Duc Ho

6-15-07